

FIG. 1

0903093-032401

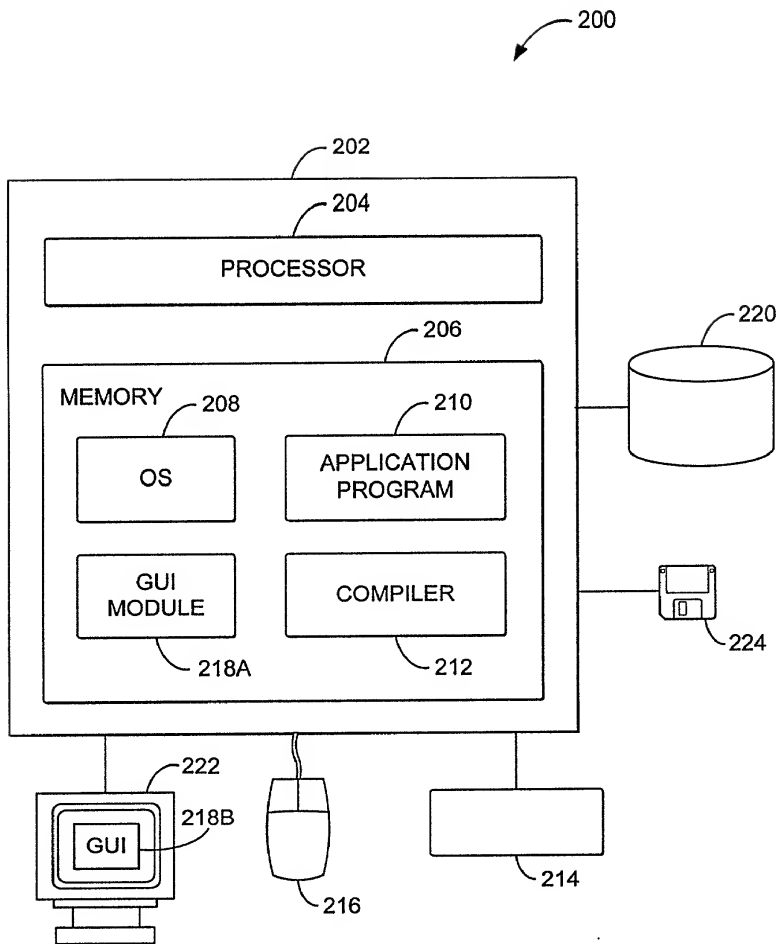


FIG. 2

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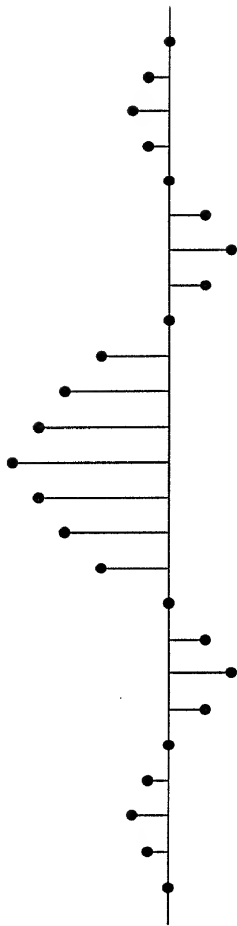


FIG. 3

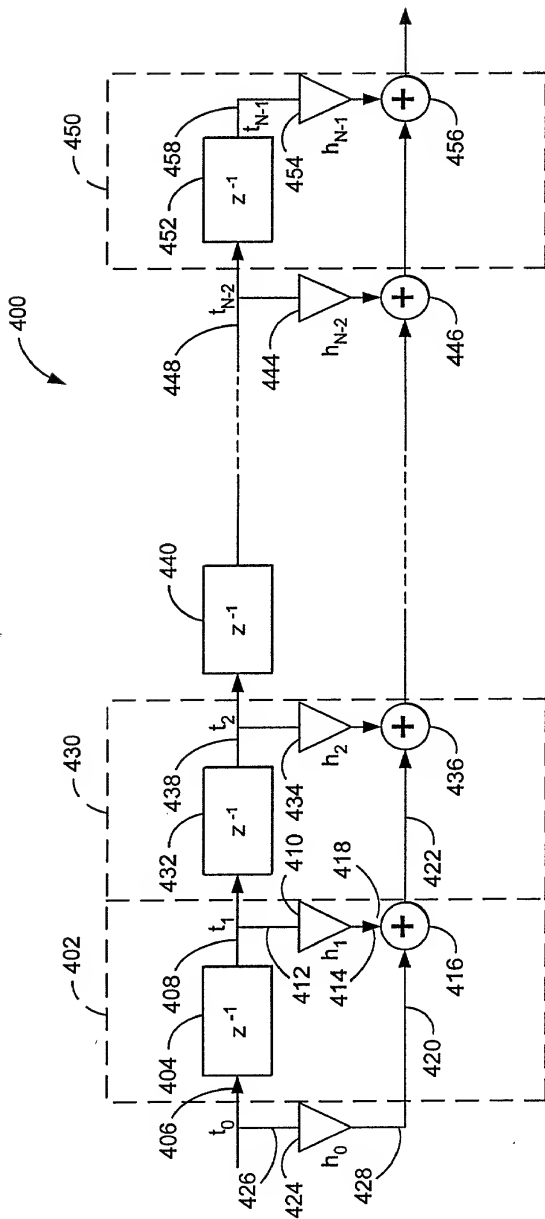


FIG. 4
Prior Art

500

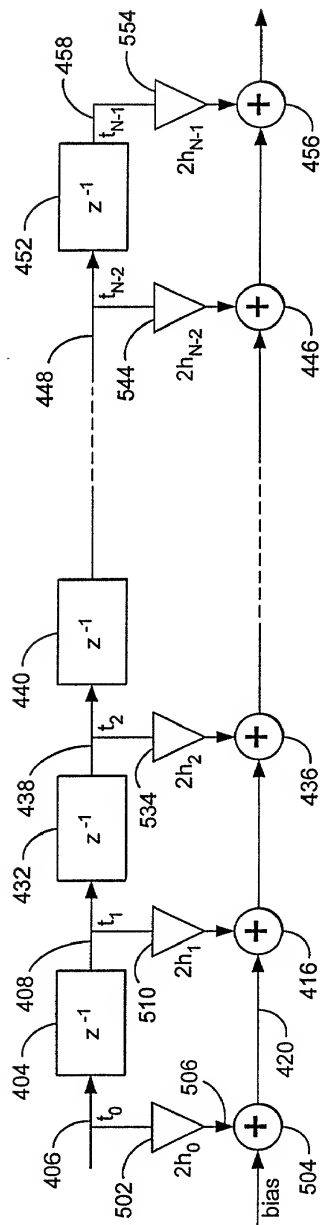


FIG. 5A

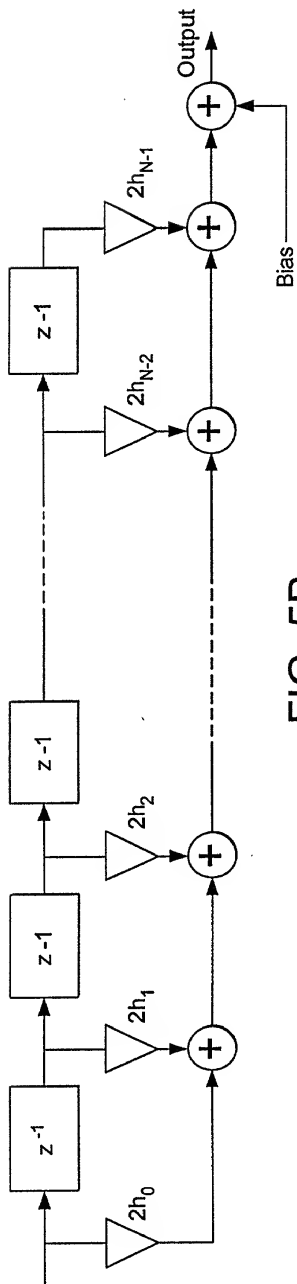


FIG. 5B

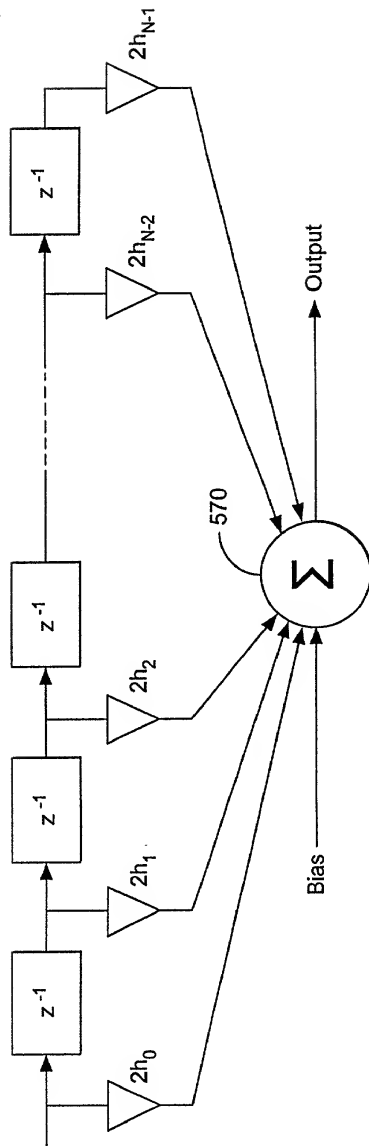


FIG. 5C

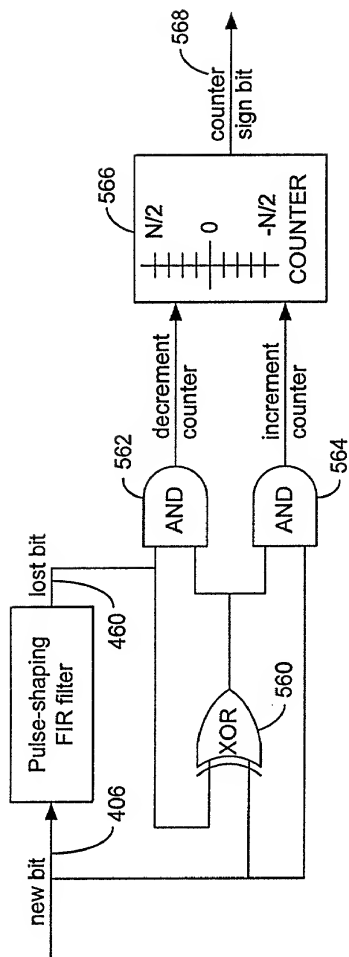


FIG. 5D

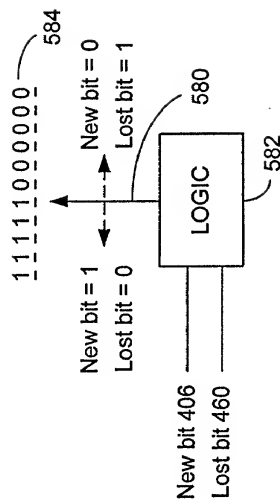


FIG. 5E

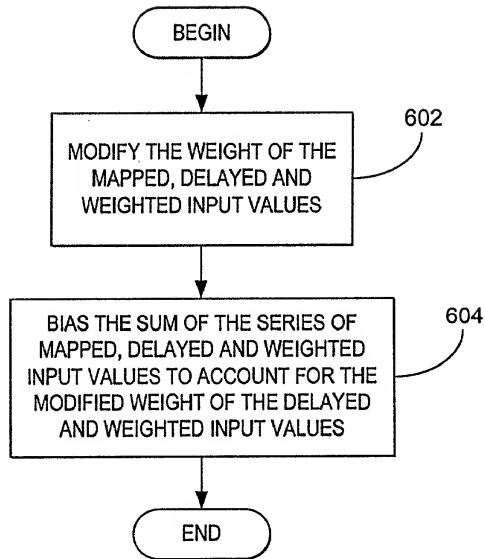


FIG. 6A

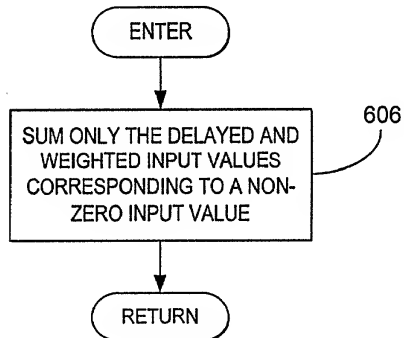


FIG. 6B

[illegible]

FIG. 6C

BEGIN

SUCCESSIVELY DELAY EACH
MAPPED INPUT VALUE TO CREATE
TAP VALUES $\{t(0), t(1), \dots, t(N-1)\}$

MULTIPLY EACH OF THE TAP VALUES
 $\{t(0), t(1), \dots, t(N-1)\}$
 BY
 $A^* \{h(0), h(1), \dots, h(N-1)\}$
 TO PRODUCE
 $\{At(0)h(0), At(1)h(1), \dots, At(N-1)h(N-1)\}$,
 WHEREIN
 $\{h(0), h(1), \dots, h(N-1)\}$
 ARE VALUES SELECTED TO
 ACHIEVE A DESIRED FILTER RESPONSE
 AND A IS A FACTOR SELECTED TO
 REDUCE THE NUMBER OF OPERATIONS

A* {h(0), h(1), ..., h(N-1)}
TO PRODUCE
{At(0)h(0), At(1)h(1), ..., At(N-1)h(N-1)},
WHEREIN
{h(0), h(1), ..., h(N-1)}

ARE VALUES SELECTED TO
ACHIEVE A DESIRED FILTER RESPONSE
AND A IS A FACTOR SELECTED TO
REDUCE THE NUMBER OF OPERATIONS

SUM THE VALUES

$\{At(0)h(0), At(1)h(1), ..., At(N-1)h(N-1)\}$

$$\{At(0)h(0), At(1)h(1), \dots, At(N-1)h(N-1)\}$$

BIAS THE SUMMED VALUES
 $\{At(0)h(0), At(1)h(1), ..., At(N-1)h(N-1)\}$
 TO PRODUCE DIGITAL FILTER OUTPUT

```

graph TD
    A([END])
  
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FIG. 6D

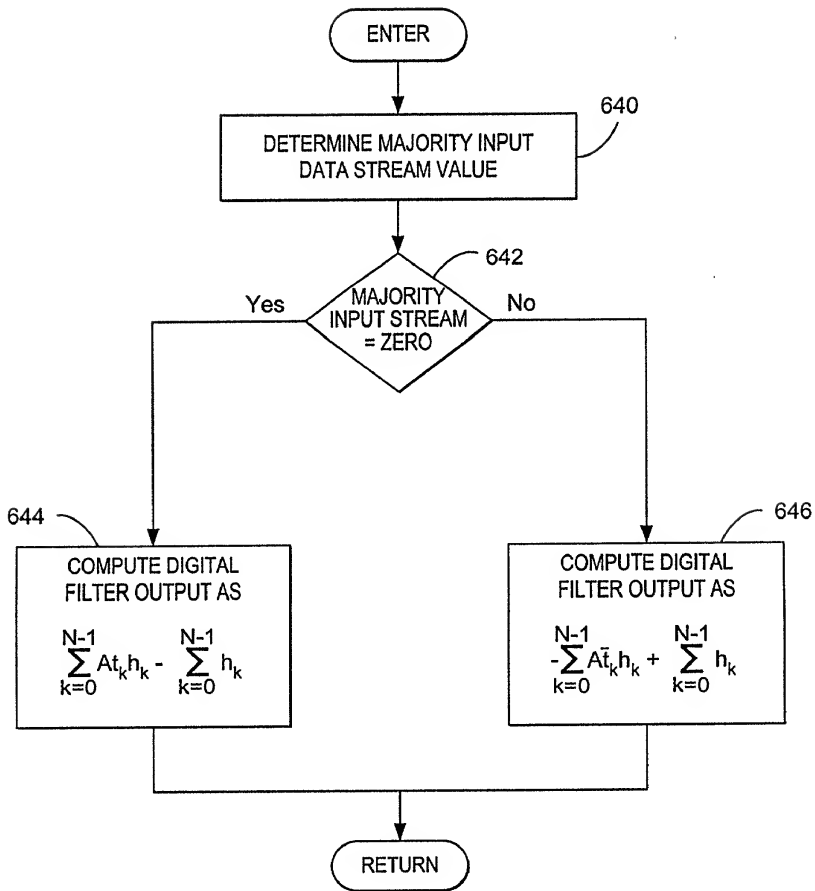


FIG. 6E

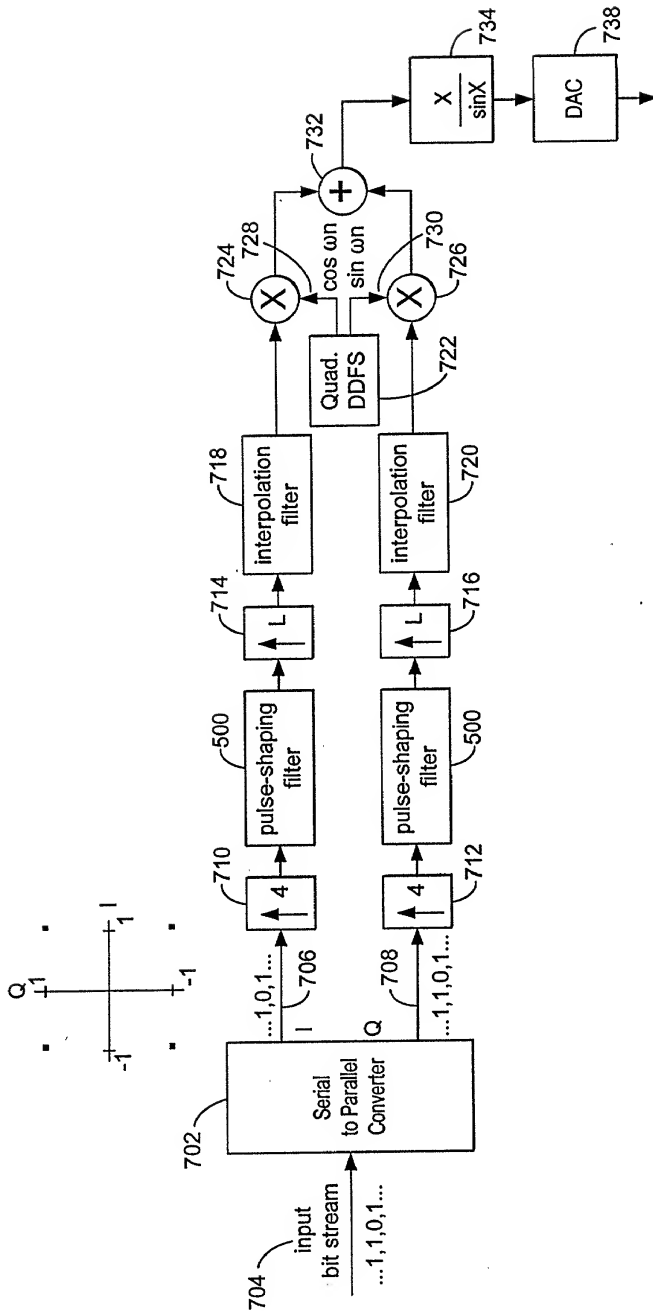


FIG. 7

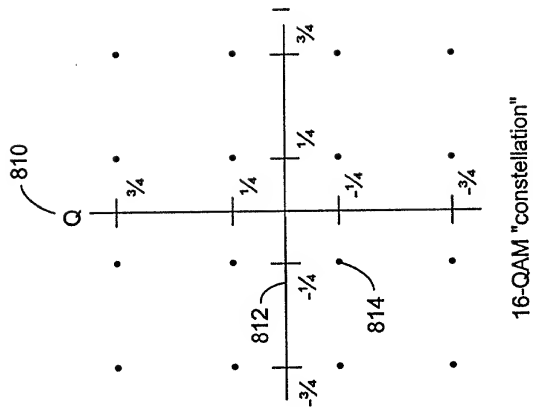
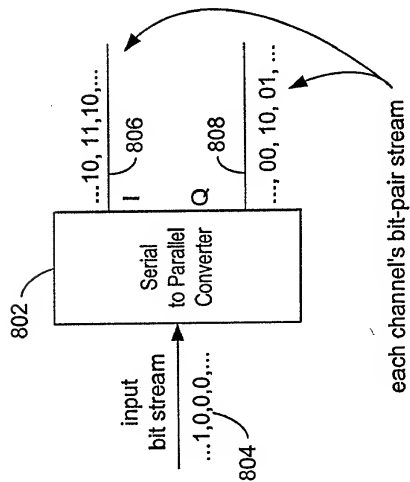


FIG. 8



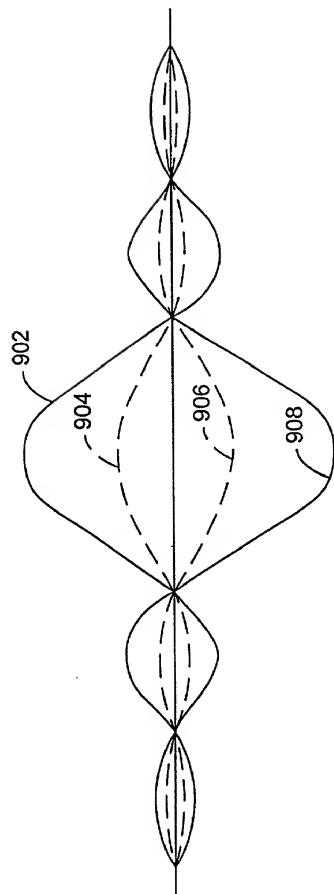


FIG. 9

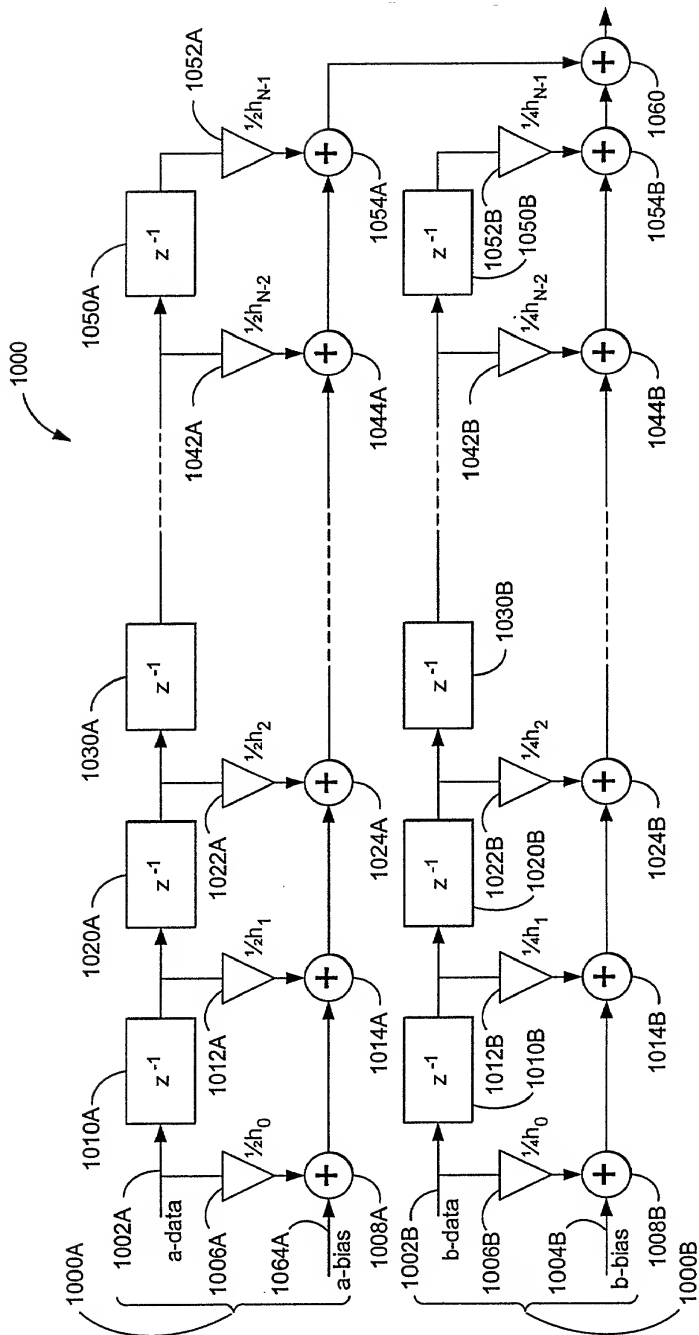


FIG. 10

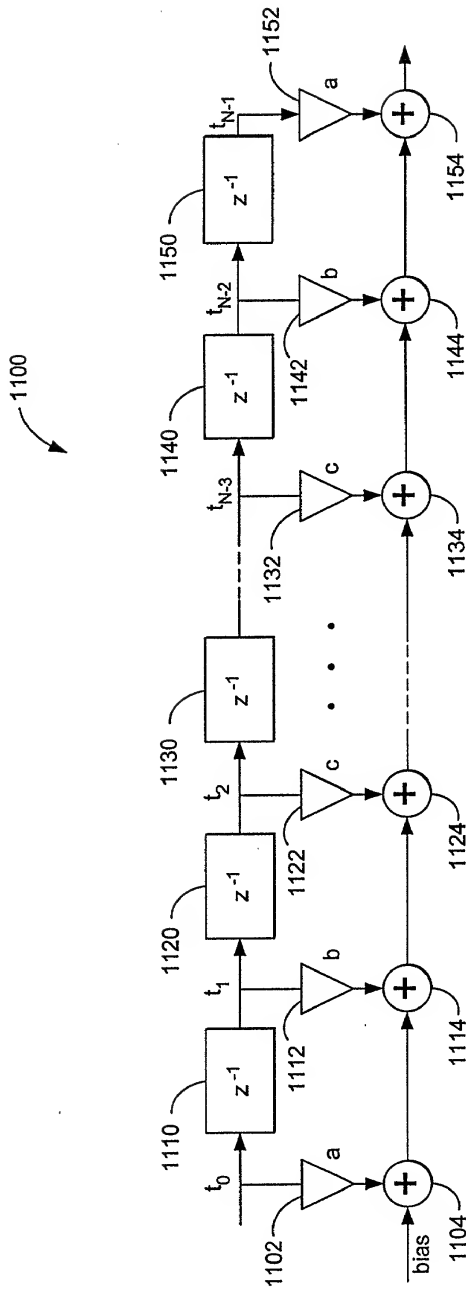


FIG. 11

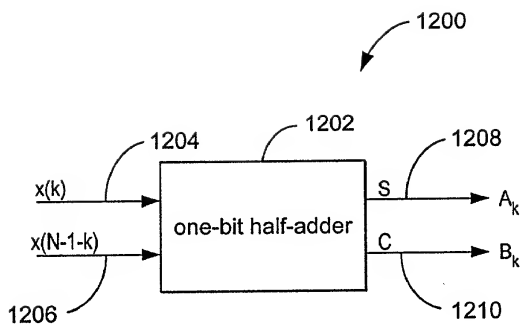


FIG. 12

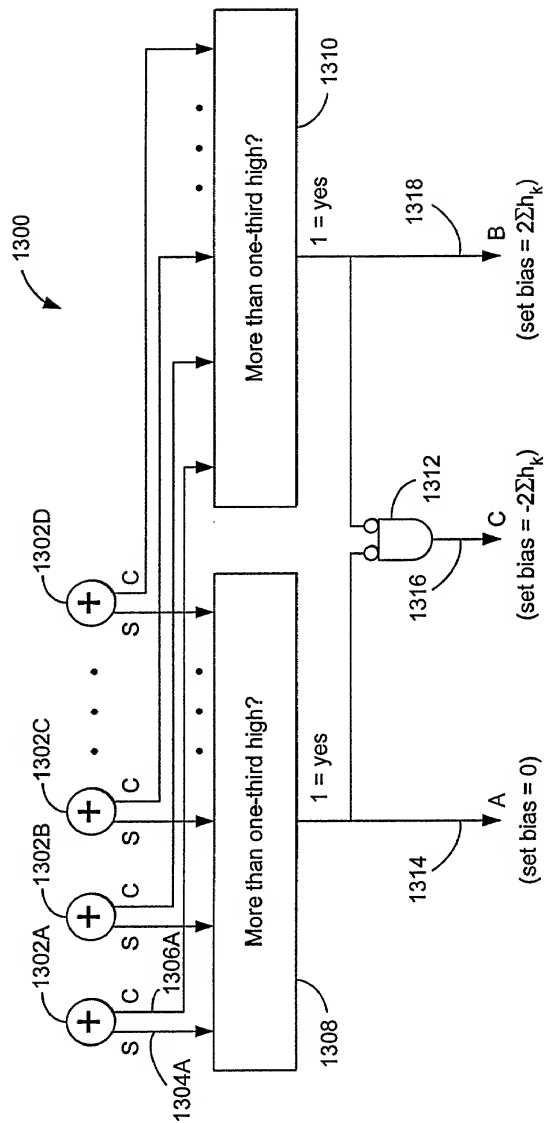


FIG. 13

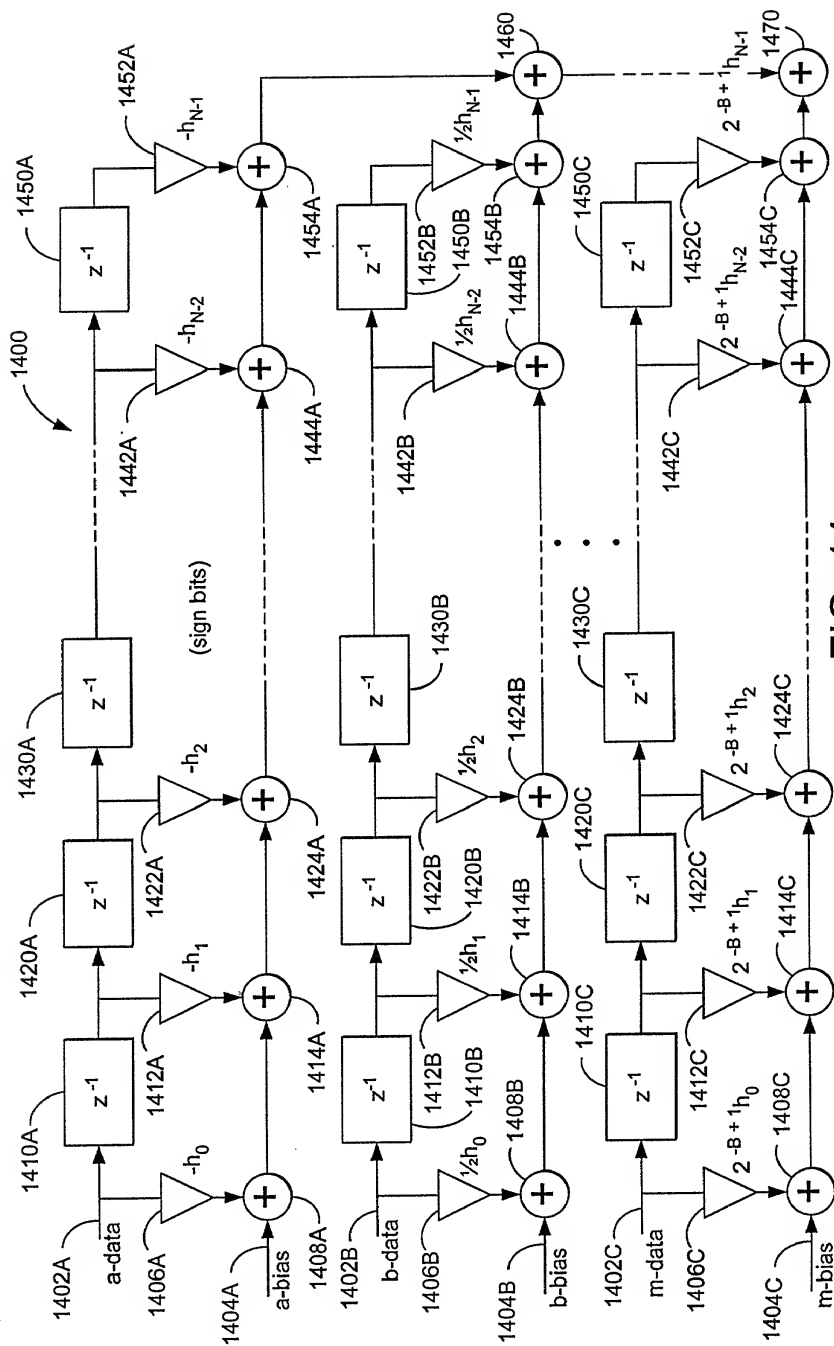


FIG. 14

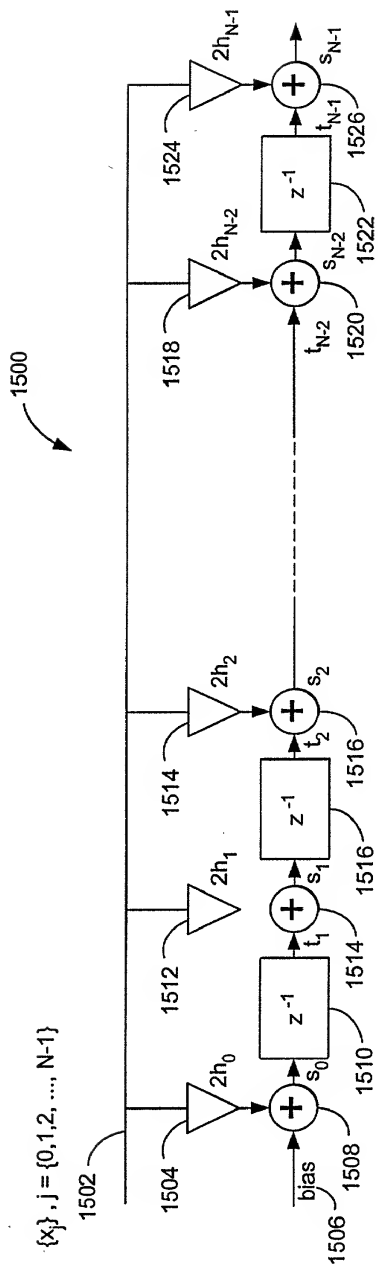


FIG. 15

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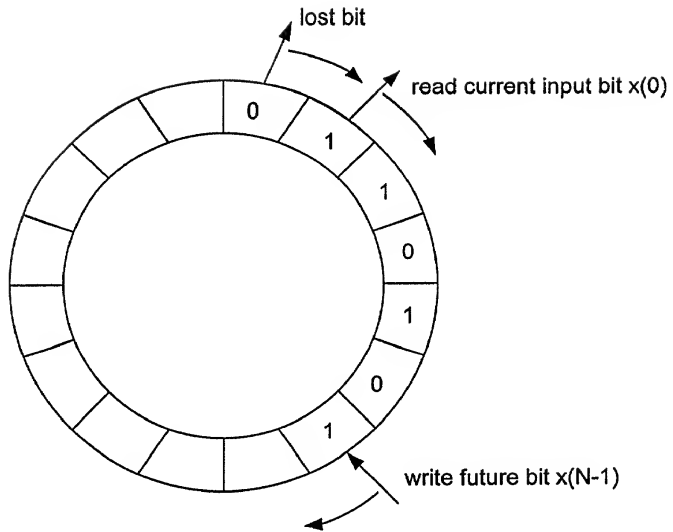


FIG. 16

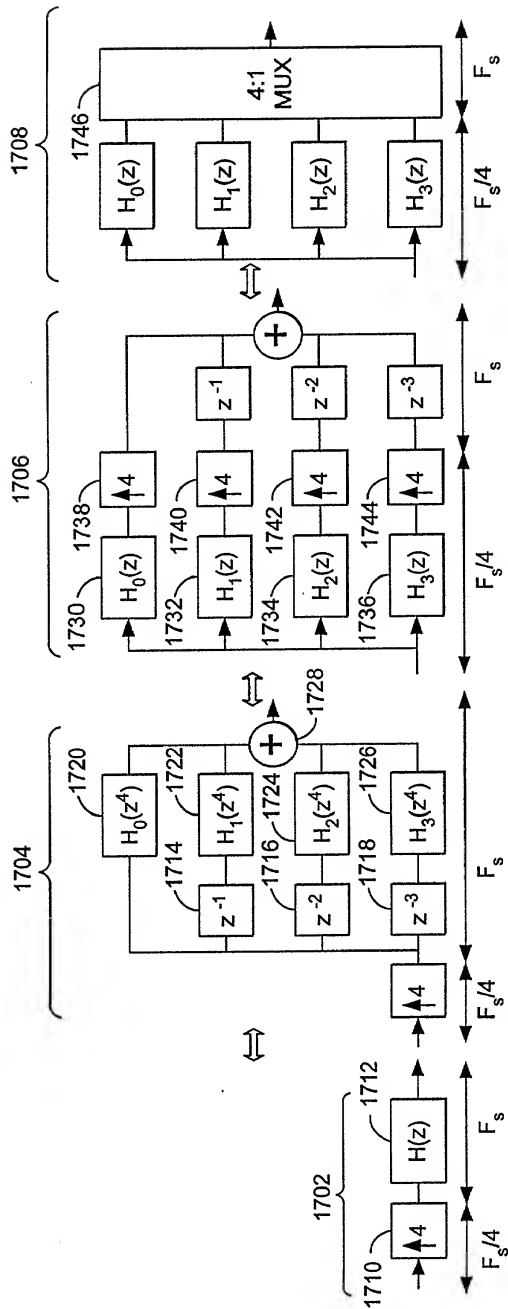


FIG. 17

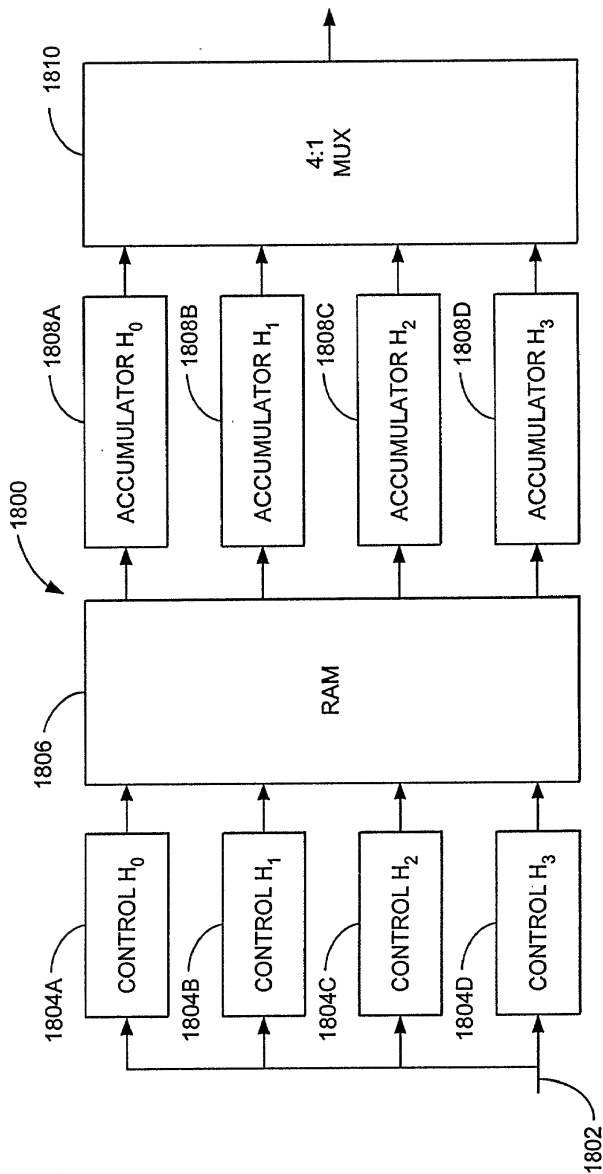


FIG. 18

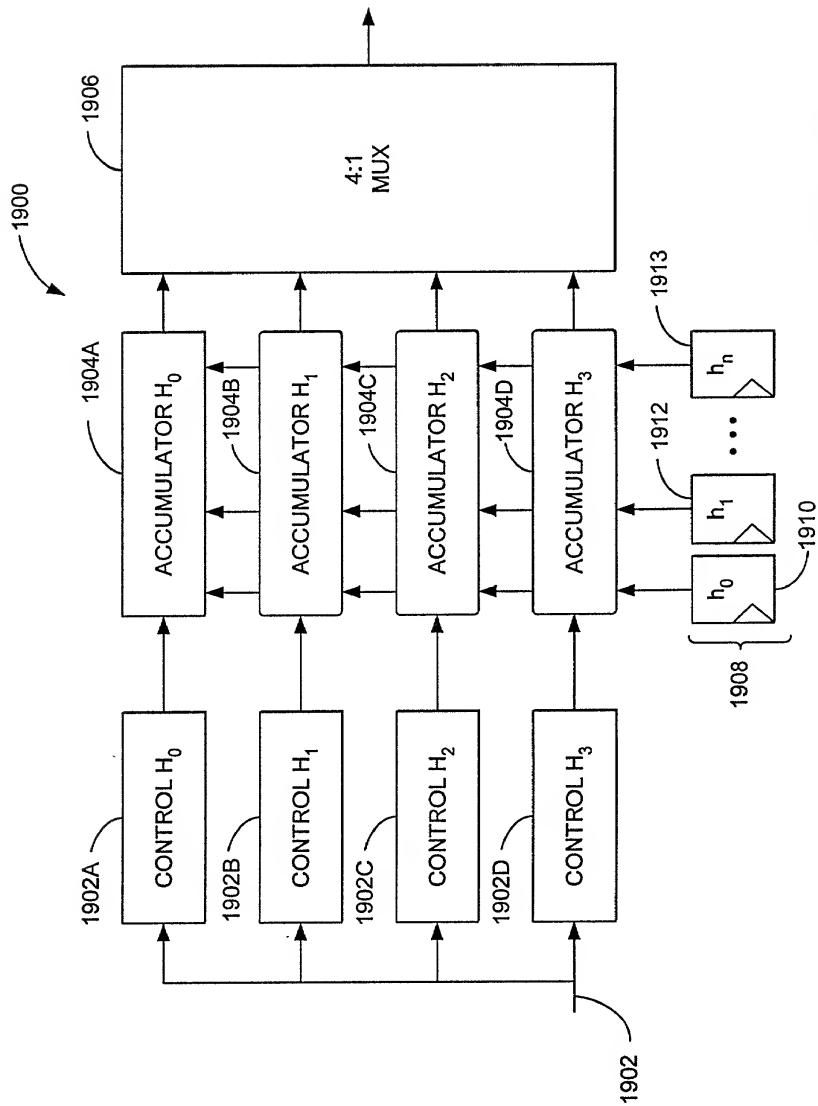


FIG. 19

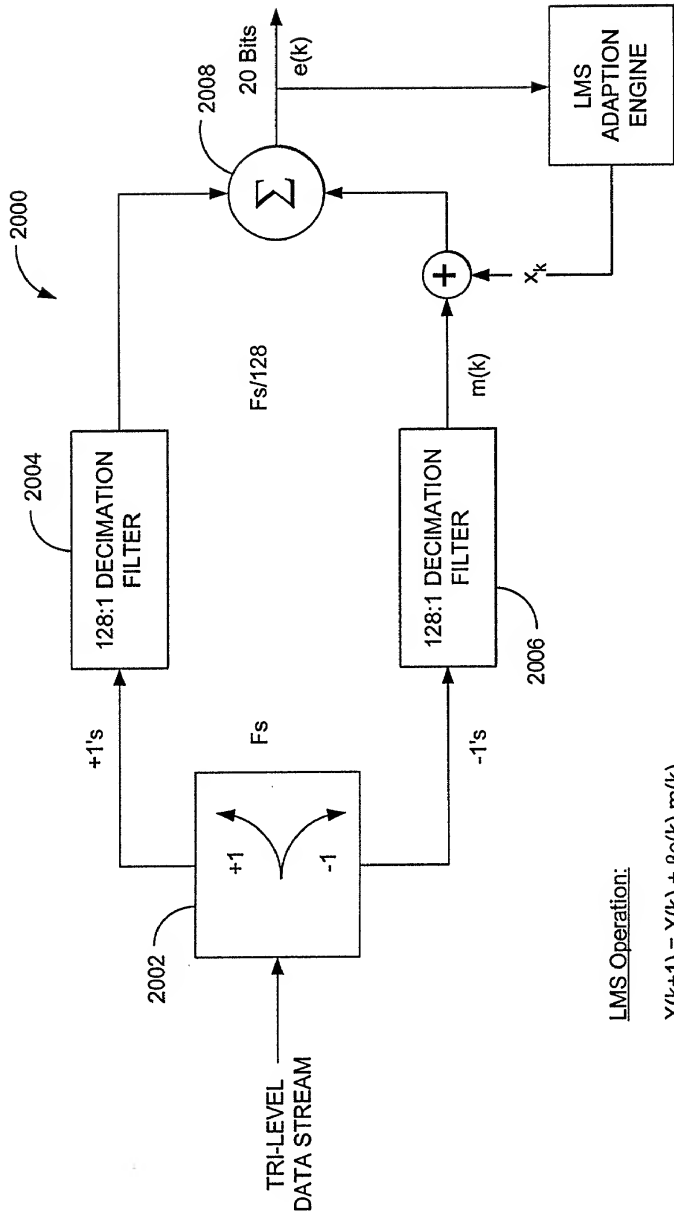


FIG. 20

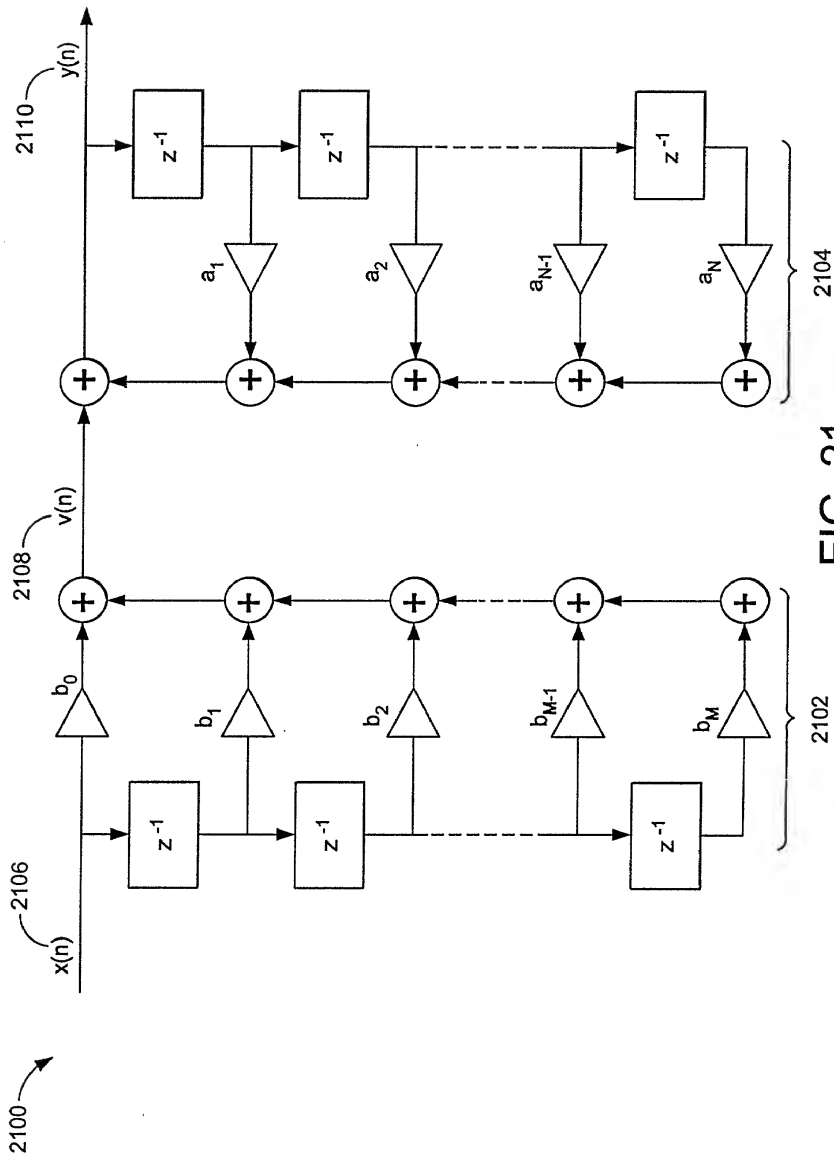


FIG. 21

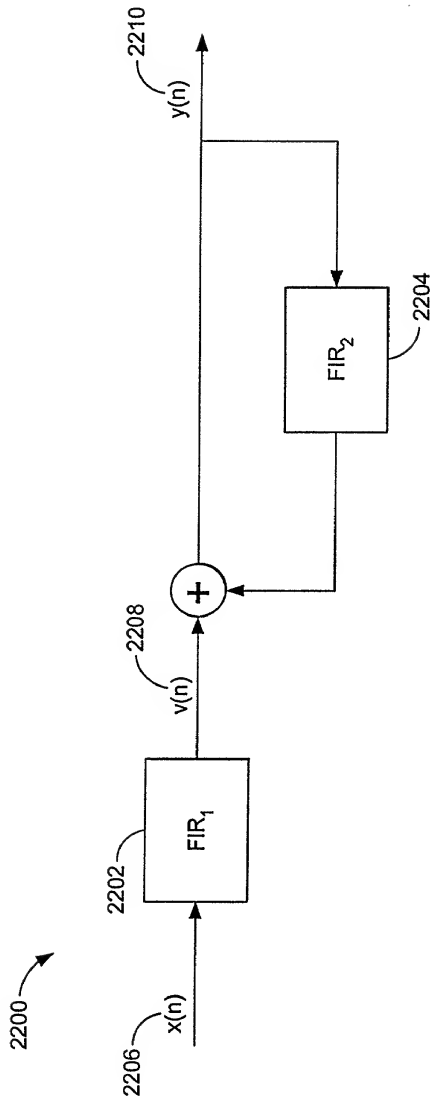


FIG. 22

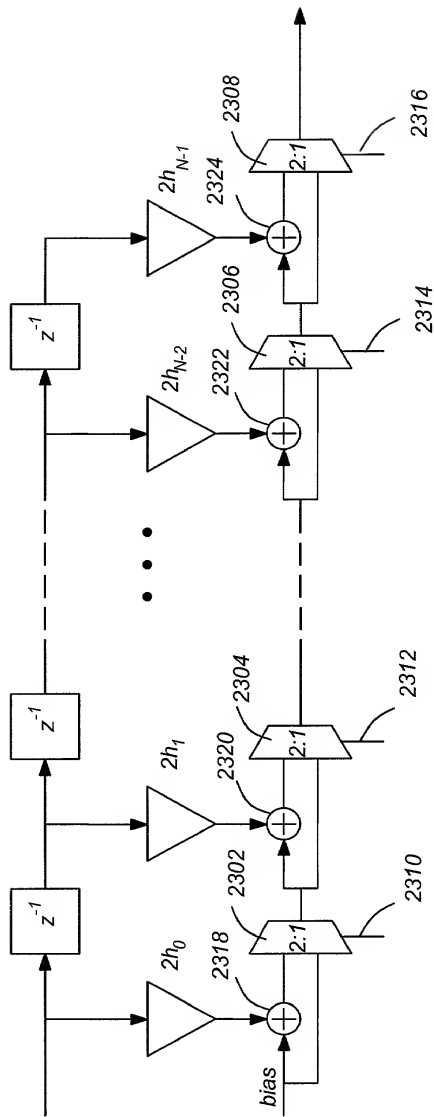


FIG. 23

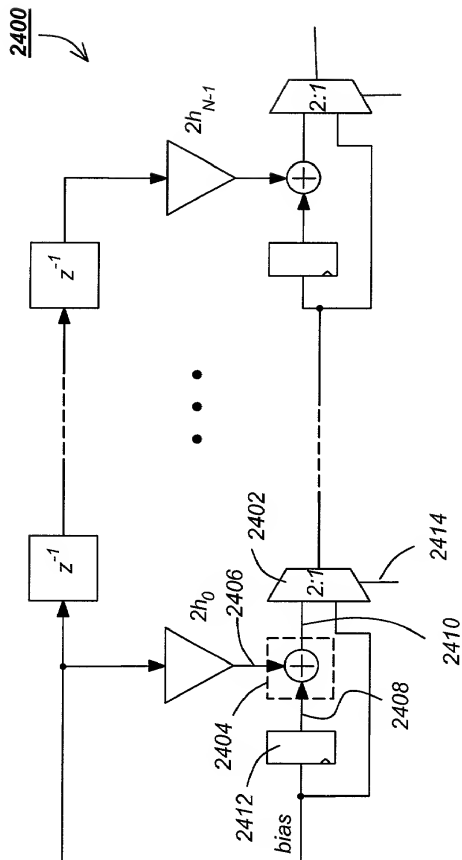


FIG. 24

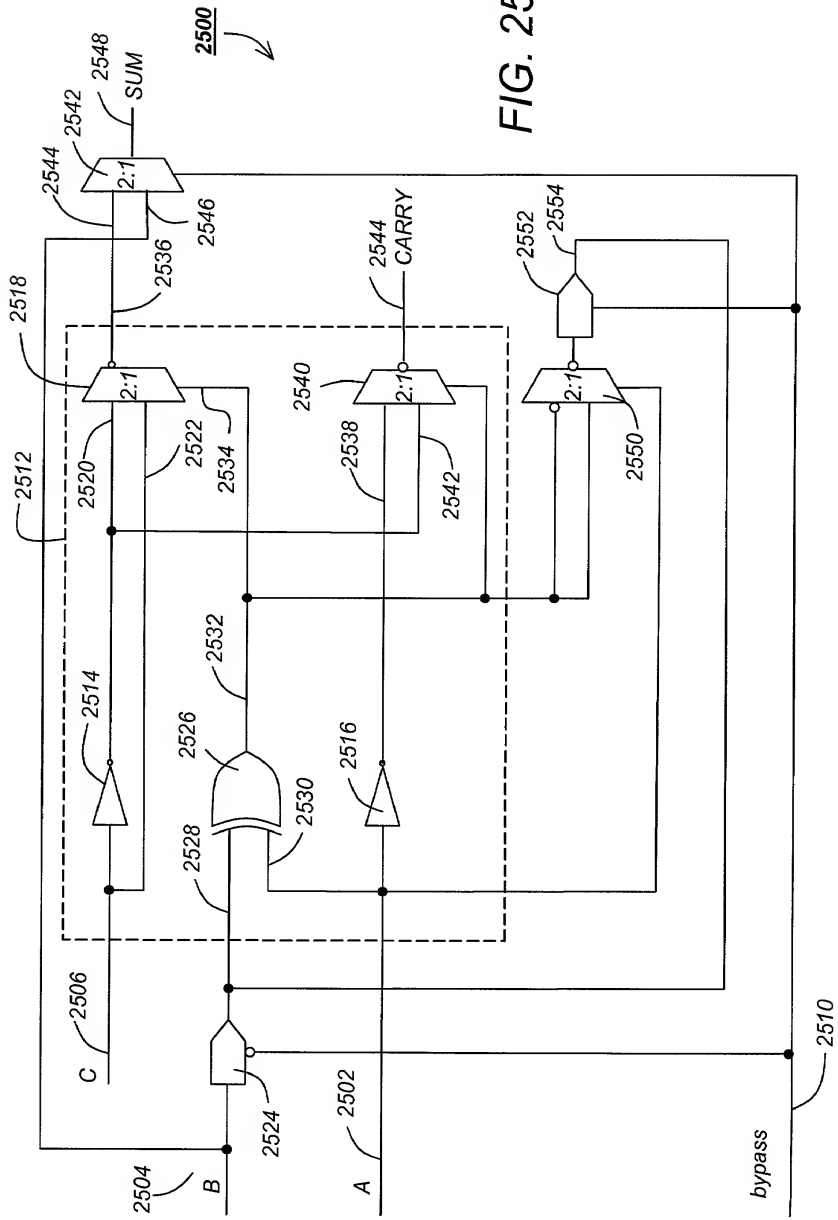


FIG. 25A

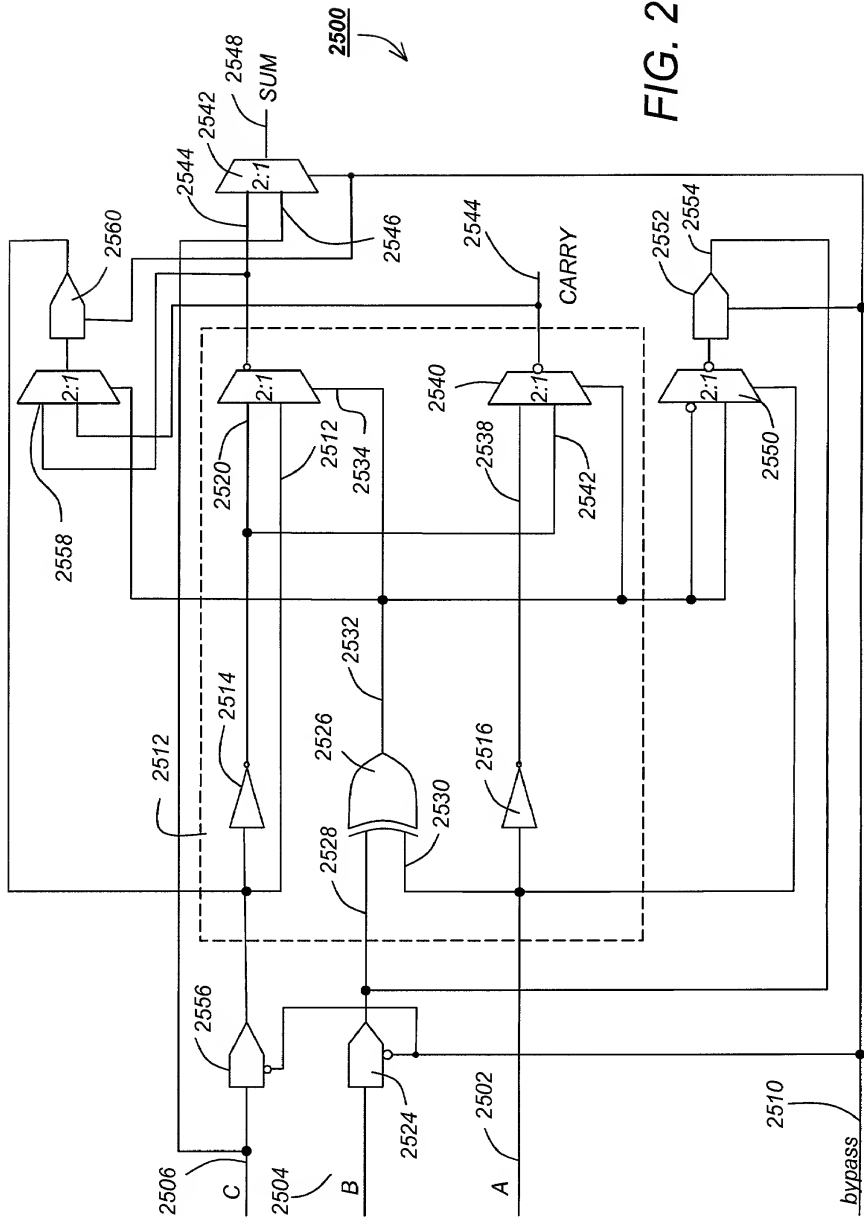


FIG. 25B

0938978-082401

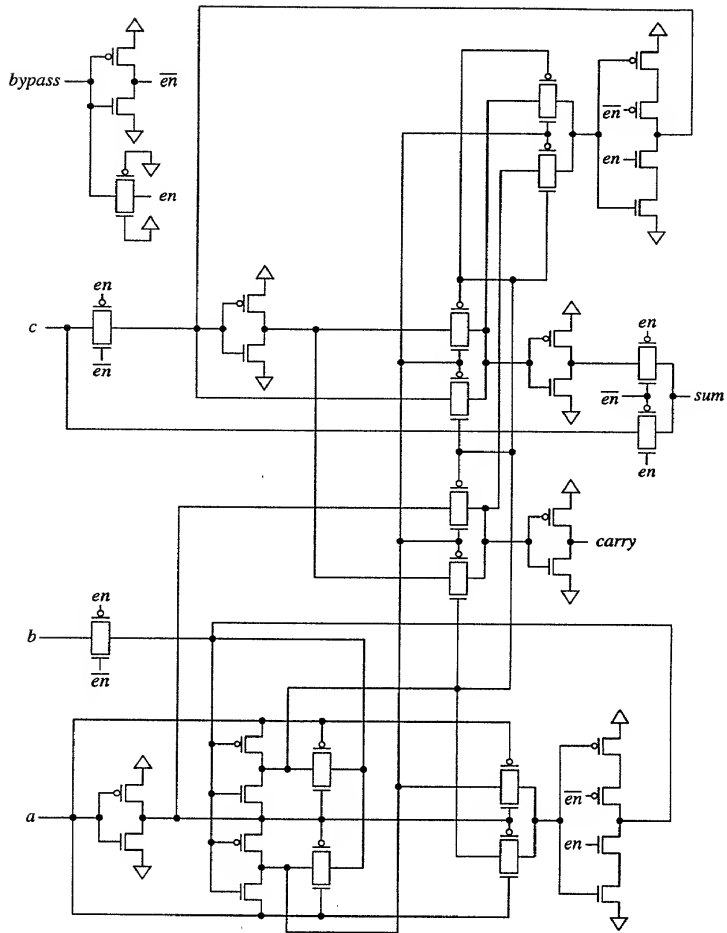


FIG. 25C

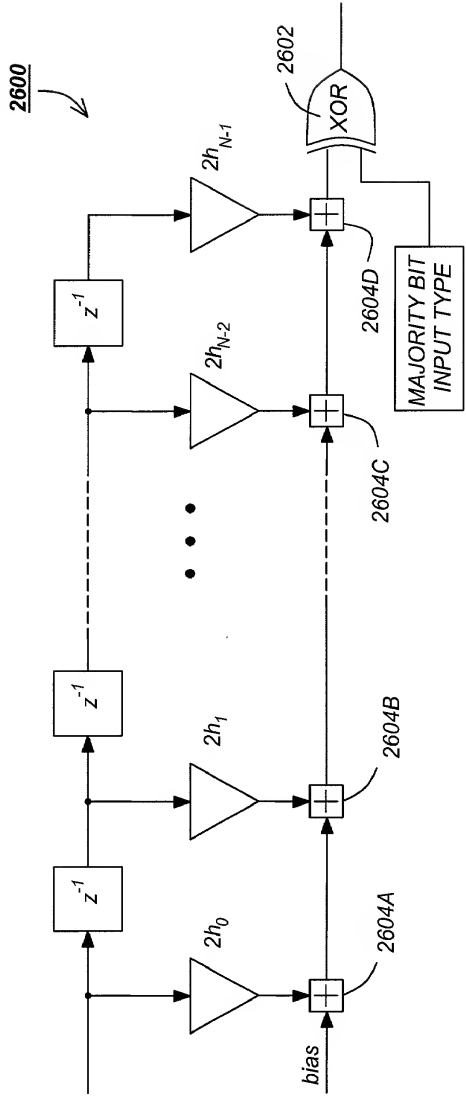


FIG. 26

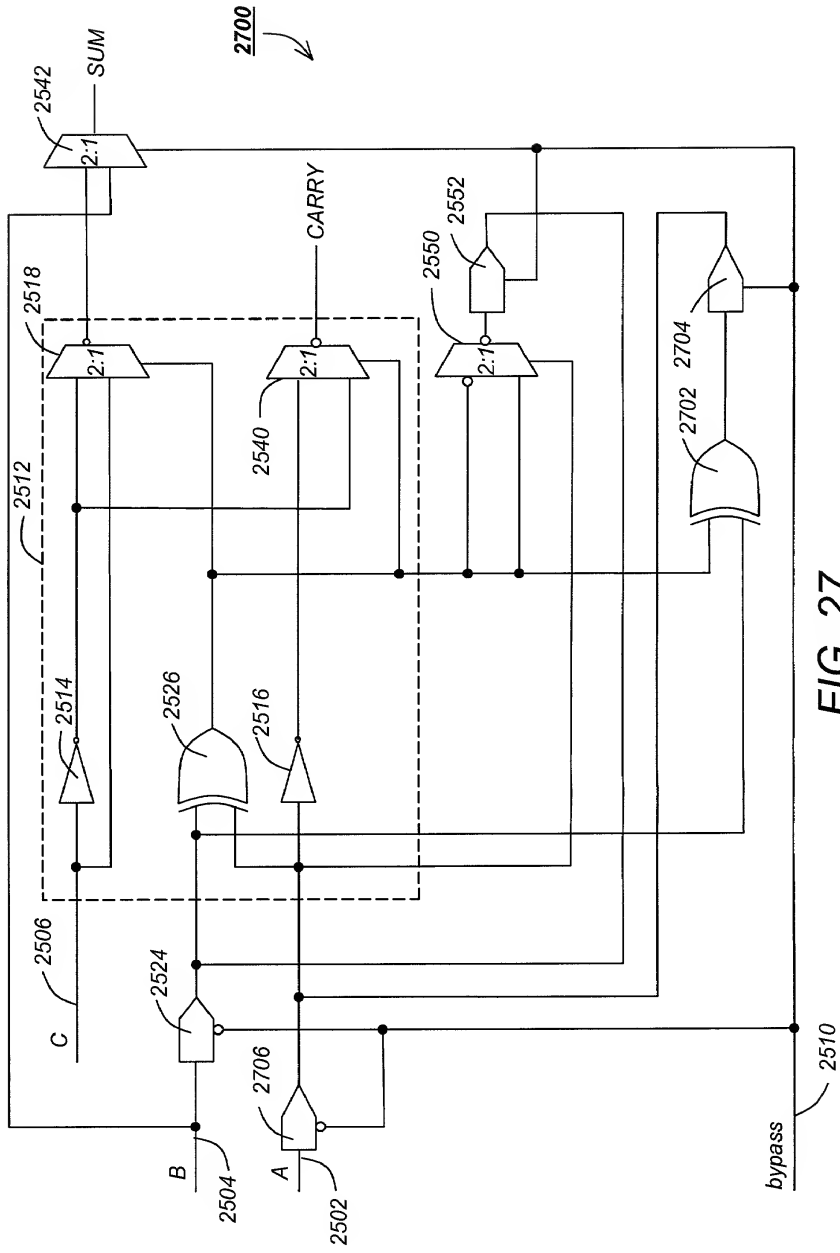


FIG. 27

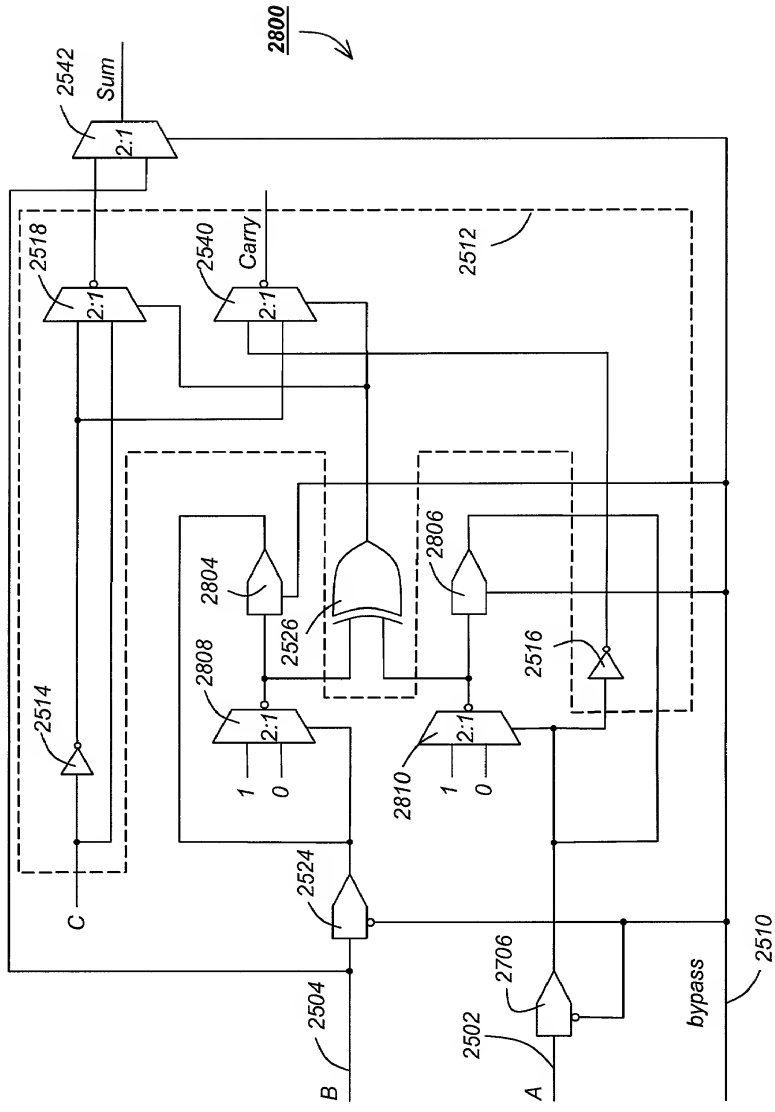


FIG. 28

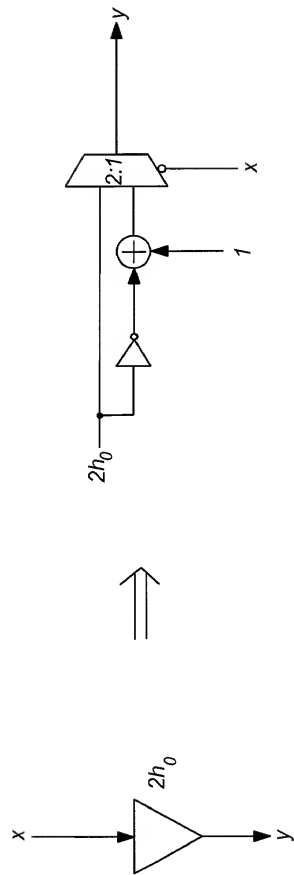


FIG. 29

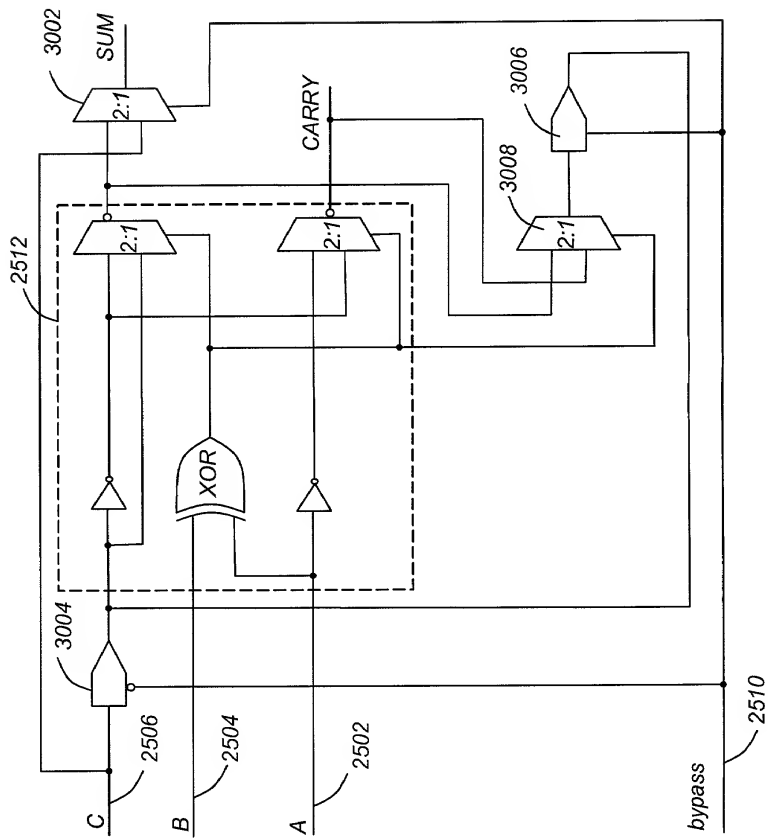
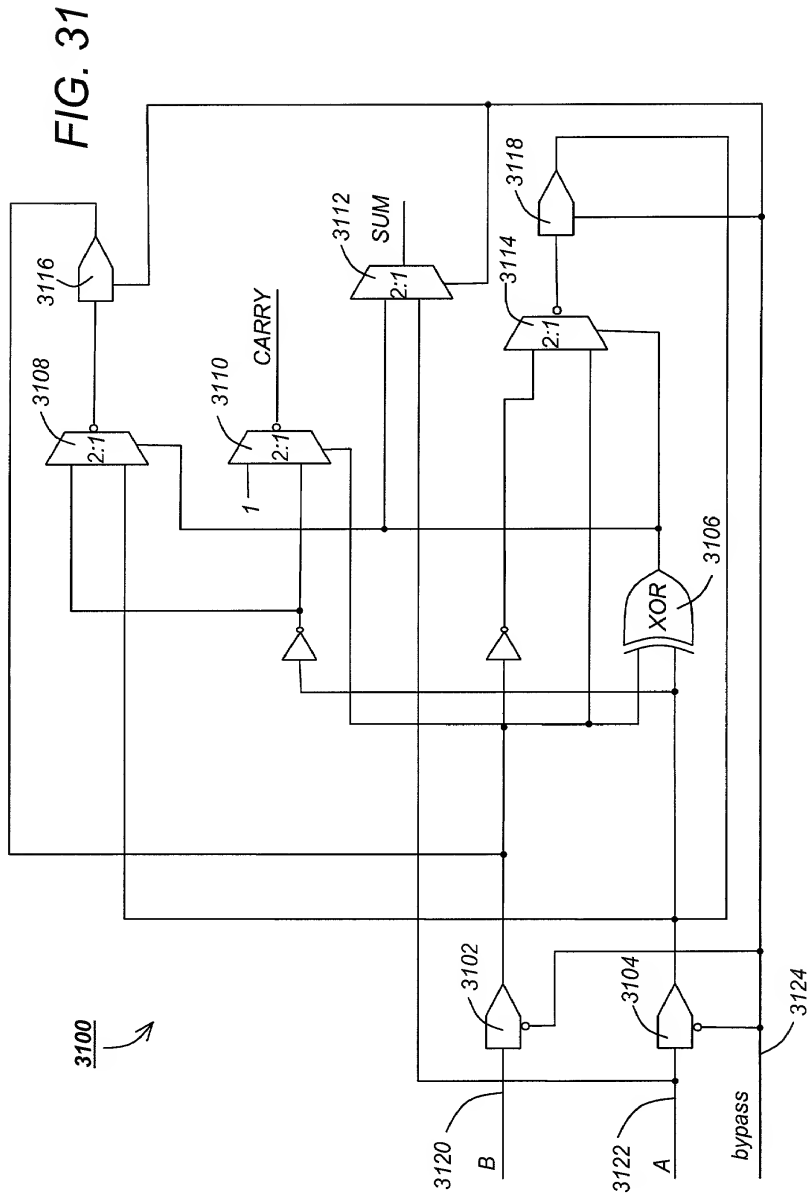


FIG. 30



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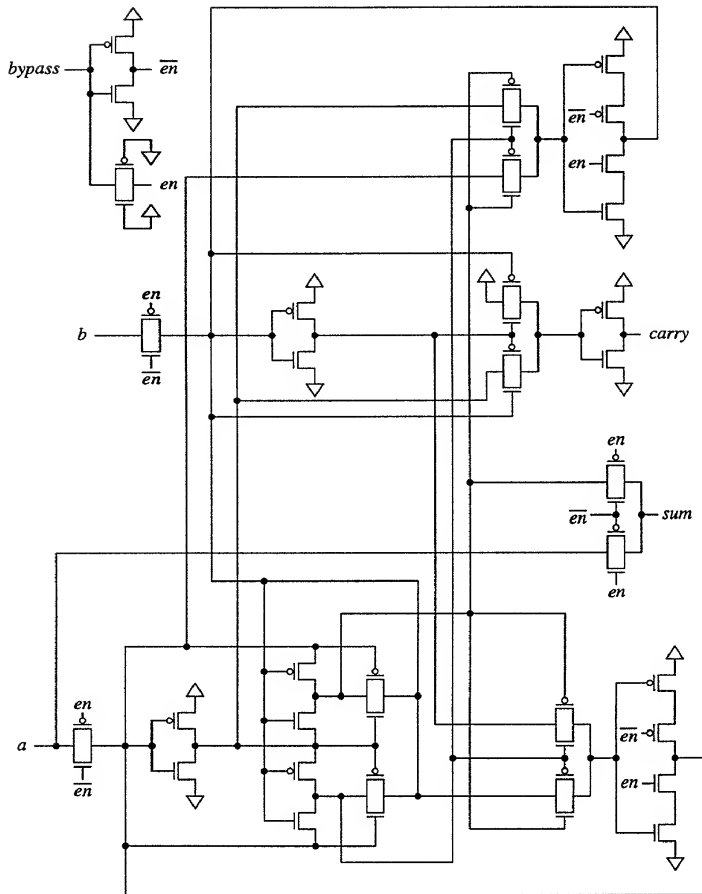


FIG 32

FIG. 33

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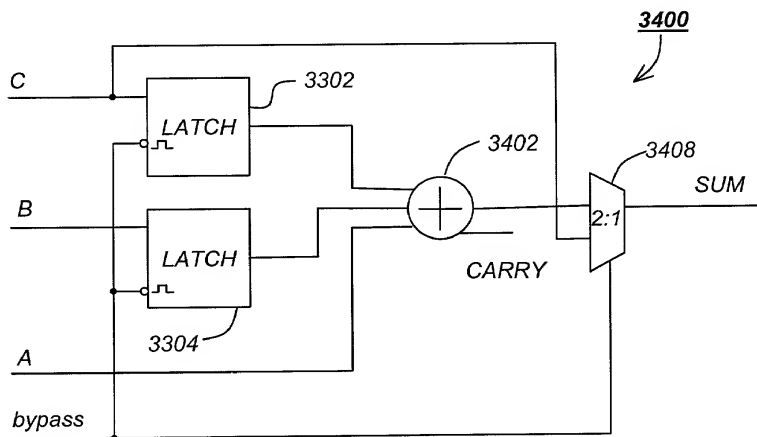


FIG. 34